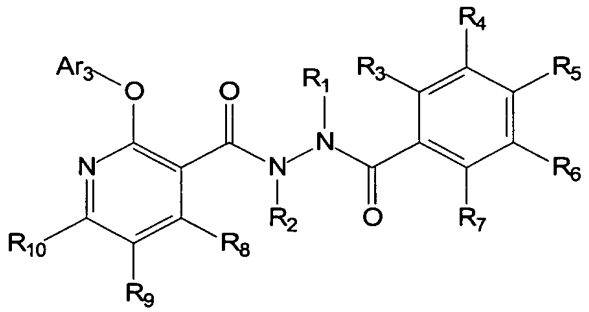
Amendments to the Claims

The listing of claims will replace all prior versions, and listings of claims in the application.

Claim 1: (currently amended) A compound having the formula ~~Formulae~~ V:



V

or a pharmaceutically acceptable salt or prodrug thereof, wherein:

Ar_3 is optionally substituted aryl ~~or optionally substituted heteroaryl~~;

R_1 and R_2 are independently hydrogen, alkyl or cycloalkyl;

R_3-R_{10} are independently hydrogen, halo, haloalkyl, aryl, fused aryl, carbocyclic, ~~a heterocyclic group, a heteroaryl group,~~ alkyl, alkenyl, alkynyl, arylalkyl, arylalkenyl, arylalkynyl, ~~heteroarylalkyl, heteroarylalkenyl, heteroarylalkynyl,~~ carbocycloalkyl, ~~heterocycloalkyl,~~ hydroxyalkyl, nitro, amino, cyano, acylamino, hydroxy, thiol, sulfonyl, phosphonyl, acyloxy, azido, alkoxy, aryloxy, ~~heteroaryloxy~~, arylalkoxy, ~~heteroarylalkoxy~~, haloalkoxy, carboxy, carbonylamido or alkylthiol~~, each of which is optionally substituted~~;

with the proviso that when Ar_3 is unsubstituted phenyl then each of R_3-R_7 is other than NH_2, $NHCH_3$, NO_2, Cl or CF_3;

wherein said prodrug is an ester of carboxylic acid containing compounds with a C_{1-4} alcohol; an ester of hydroxy containing compounds with a C_{1-4} carboxylic acid, C_{3-6}

dioic acid or anhydride thereof; an imine of amino containing compounds with a C_{1-4} aldehyde or ketone; a carbamate of amino containing compounds; or an acetal or a ketal of alcohol containing compounds;

wherein the alkyl, alkoxy, alkenyl and alkynyl groups may have optional substituents selected from the group consisting of one or more halo, hydroxy, carboxyl, amino, nitro, cyano, C_1-C_6 acylamino, C_1-C_6 acyloxy, C_1-C_6 alkoxy, aryloxy, alkylthio, C_6-C_{10} aryl, C_4-C_7 cycloalkyl, C_2-C_6 alkenyl, C_2-C_6 alkynyl, C_6-C_{10} aryl(C_2-C_6)alkenyl and C_6-C_{10} aryl(C_2-C_6)alkynyl groups; and

wherein the aryl, aralkyl, aralkenyl and aralkynyl groups may have optional substituents selected from the group consisting of one or more halo, C_1-C_6 haloalkyl, C_6-C_{10} aryl, C_6-C_{10} aryloxy, C_4-C_7 cycloalkyl, C_1-C_6 alkyl, C_2-C_6 alkenyl, C_2-C_6 alkynyl, C_6-C_{10} aryl(C_1-C_6)alkyl, C_6-C_{10} aryl(C_2-C_6)alkenyl- , C_6-C_{10} aryl(C_2-C_6)alkynyl, C_1-C_6 hydroxyalkyl, nitro, amino, ureido, cyano, C_1-C_6 acylamino, hydroxy, thiol, C_1-C_6 acyloxy, azido, C_1-C_6 alkoxy and carboxy groups.

Claim 2: (previously presented) The compound of claim 1, wherein R_1 and R_2 are hydrogen.

Claim 3: (previously presented) The compound of claim 1, wherein at least one of R_3-R_7 is other than hydrogen.

Claim 4: (previously presented) The compound of claim 1, wherein Ar_3 is optionally substituted aryl.

Claim 5: (previously presented) The compound of claim 4, wherein Ar_3 is optionally substituted phenyl.

Claims 6 and 7: (canceled)

Claim 8: (currently amended) The compound of claim ~~7~~1, wherein said compound is selected from the group consisting of:

~~N'-(2-Phenoxypyridine-3-carbonyl)-4-nitrobenzhydrazide;~~

~~N'-(2-Phenoxypyridine-3-carbonyl)-2-amino-5-nitrobenzhydrazide;~~

N'-[2-(4-Methylphenoxy)pyridine-3-carbonyl]-2-hydroxy-benzhydrazide;

~~N'-(2-Phenoxypyridine-3-carbonyl)-3-trifluoromethyl)benzhydrazide;~~

N'-[2-(4-Methylphenoxy)pyridine-3-carbonyl]-3-(trifluoromethyl)-benzhydrazide;

N'-(2-Phenoxypyridine-3-carbonyl)-3-hydroxybenzhydrazide;

~~N'-(2-Phenoxypyridine-3-carbonyl)-3-aminobenzhydrazide;~~

~~N'-(2-Phenoxypyridine-3-carbonyl)-4-(trifluoromethyl)benzhydrazide;~~

N'-(2-Phenoxypyridine-3-carbonyl)-4-hydroxybenzhydrazide;

N'-(2-Phenoxypyridine-3-carbonyl)-2-hydroxybenzhydrazide;

~~N'-(2-Phenoxypyridine-3-carbonyl)-2-(trifluoromethyl)benzhydrazide;~~

N'-(2-Phenoxypyridine-3-carbonyl)-3-fluorobenzhydrazide;

~~N'-(2-Phenoxypyridine-3-carbonyl)-3-nitrobenzhydrazide; and~~

N'-(2-Phenoxypyridine-3-carbonyl)-2-fluorobenzhydrazide; and

pharmaceutically acceptable salts and prodrugs thereof.

Claims 9-10: (canceled).

Claim 11: (currently amended) A compound selected from the group consisting of:

N'-[5-(1-Hexynyl)pyridine-3-carbonyl]-3-(trifluoromethyl)-benzhydrazide;

N'-(Pyridine-3-carbonyl)-4-bromobenzhydrazide;

N'-(2-Phenoxypyridine-3-carbonyl)-(N-oxide-pyridine-3-carbonyl)hydrazide;

N'-(2-Phenoxypyridine-3-carbonyl)-(pyridine-3-carbonyl)hydrazide;

N'-[2-(Methylthio)pyridine-3-carbonyl]-3-(trifluoromethyl)benzhydrazide;

2-Phenoxypyridine-3-carboxylic acid (3-pyridylmethylidene)-hydrazide;

2-Phenoxypyridine-3-carboxylic acid (4-pyridylmethylidene)-hydrazide;

2-Chloropyridine-3-carboxylic acid (3-trifluoromethyl-benzylidene)-hydrazide;

2-Anilinopyridine-3-carboxylic acid (3-trifluoromethyl-benzylidene)-hydrazide;

Biphenyl-2-carboxylic acid (3-trifluoromethyl-benzylidene)-hydrazide;

2-(3-Trifluoromethyl-anilino)-pyridine-3-carboxylic acid (3-trifluoromethyl-benzylidene)-hydrazide;

3,4,5-Trimethoxy-benzoic acid (3-trifluoromethyl-benzylidene)-hydrazide;

3,4-Dihydroxy-benzoic acid (3-trifluoromethyl-benzylidene)-hydrazide;

4-(Pyridin-4-yl)-2-(pyridin-2-yl)pyrimidine-5-carboxylic acid (3-trifluoromethyl-benzylidene)-hydrazide;

5-Amino-2-phenoxy-benzoic acid (3-trifluoromethyl-benzylidene)-hydrazide;

2-(Morpholin-4-ylmethyl)-benzoic acid (3-trifluoromethyl-benzylidene)-hydrazide;

5-Nitro-2-phenoxy-benzoic acid (3-trifluoromethyl-benzylidene)-hydrazide;

2-[1-(6-Chloro-pyridin-2-yl)-1H-[1,2,4]triazol-3ylmethoxy]-benzoic acid (3-trifluoromethyl-benzylidene)-hydrazide;

2-Phenoxybenzoic acid (3-trifluoromethylbenzylidene)-hydrazide; and

2-Phenoxybenzoic acid (2-hydroxybenzylidene)-hydrazide; and

pharmaceutically acceptable salts and prodrugs thereof;

wherein said prodrug is an ester of carboxylic acid containing compounds with a C_{1-4} alcohol; an ester of hydroxy containing compounds with a C_{1-4} carboxylic acid, C_{3-6} dioic acid or anhydride thereof; an imine of amino containing compounds with a C_{1-4} aldehyde or ketone; a carbamate of amino containing compounds; or an acetal or a ketal of alcohol containing compounds.

Claim 12: (previously presented) A pharmaceutical composition, comprising the compound of claim 1 or 11, and a pharmaceutically acceptable carrier.

Claims 13 and 14 (canceled)

Claim 15: (withdrawn) A method of treating a disorder responsive to the induction of apoptosis in an animal suffering therefrom, comprising administering to an animal in need of such treatment an effective amount of a compound of claim 1.

Claim 16: (withdrawn) The method of claim 15, wherein said animal is a mammal.

Claim 17: (withdrawn) The method of claim 15, wherein R_1 and R_2 are hydrogen.

Claims 18-36: (canceled).

Claim 37: (withdrawn) The method of claim 15, wherein R_3-R_{10} independently are hydrogen, halogen, methyl, trifluoromethyl, hydroxy, methoxy, NH_2, $NHCH_3$ or $N(CH_3)_2$.

Claim 38: (withdrawn) The method of claim 15, wherein Ar_3 is optionally substituted aryl.

Claim 39: (withdrawn) The method of claim 15, wherein Ar_3 is optionally substituted phenyl.

Claim 40: (withdrawn) The method of claim 15, wherein Ar_3 is optionally substituted heteroaryl.

Claim 41: (canceled)

Claim 42: (withdrawn; amended) The method of claim 15, wherein said compound is selected from the group consisting of:

~~N'-(2-Phenoxypyridine-3-carbonyl)-4-nitrobenzhydrazide;~~

~~N'-(2-Phenoxypyridine-3-carbonyl)-2-amino-5-nitrobenzhydrazide;~~

N'-[2-(4-Methylphenoxy)pyridine-3-carbonyl]-2-hydroxy-benzhydrazide;

~~N'-(2-Phenoxypyridine-3-carbonyl)-3-trifluoromethyl)benzhydrazide;~~

N'-[2-(4-Methylphenoxy)pyridine-3-carbonyl]-3-(trifluoromethyl)benzhydrazide;

N'-(2-Phenoxypyridine-3-carbonyl)-3-hydroxybenzhydrazide;

~~N'-(2-Phenoxypyridine-3-carbonyl)-3-aminobenzhydrazide;~~

~~N'-(2-Phenoxypyridine-3-carbonyl)-4-(trifluoromethyl)benzhydrazide;~~

N'-(2-Phenoxypyridine-3-carbonyl)-4-hydroxybenzhydrazide;

N'-(2-Phenoxypyridine-3-carbonyl)-2-hydroxybenzhydrazide;

~~N'-(2-Phenoxypyridine-3-carbonyl)-2-(trifluoromethyl)benzhydrazide;~~

N'-(2-Phenoxypyridine-3-carbonyl)-3-fluorobenzhydrazide; and

~~N'-(2-Phenoxypyridine-3-carbonyl)-3-nitrobenzhydrazide; and~~

N'-(2-Phenoxypyridine-3-carbonyl)-2-fluorobenzhydrazide;

and pharmaceutically acceptable salts and prodrugs thereof.

Claims 43-46: (canceled)

Claim 47: (withdrawn) A method for treating or preventing cancer comprising administering to an animal in need of such treatment an effective amount of a compound of claim 1.

Claim 48: (withdrawn) The method of claim 47, wherein said animal is a mammal.

Claim 49: (withdrawn) The method of claim 47, wherein R_1 and R_2 are hydrogen.

Claims 50-54: (canceled)

Claim 55: (withdrawn) The method of claim 47, wherein said cancer is selected from the group consisting of Hodgkin's disease, non-Hodgkin's lymphoma, acute lymphocytic leukemia, chronic lymphocytic leukemia, multiple myeloma, neuroblastoma, breast carcinoma, ovarian carcinoma, lung carcinoma, Wilms' tumor, cervical carcinoma, testicular carcinoma, soft-tissue sarcoma, primary macroglobulinemia, bladder carcinoma, chronic granulocytic leukemia, primary brain carcinoma, retinoblastoma, glioma, malignant melanoma, small-cell lung carcinoma, stomach carcinoma, colon carcinoma, malignant pancreatic insulinoma, malignant carcinoid carcinoma, malignant melanoma, choriocarcinoma, mycosis fungoides, head or neck carcinoma, osteogenic sarcoma, pancreatic carcinoma, acute granulocytic leukemia, hairy cell leukemia, neuroblastoma, rhabdomyosarcoma, Kaposi's sarcoma, genitourinary carcinoma, thyroid carcinoma, esophageal carcinoma, malignant hypercalcemia, cervical

hyperplasia, renal cell carcinoma, endometrial carcinoma, polycythemia vera, essential thrombocytosis, adrenal cortex carcinoma, skin cancer and prostatic carcinoma.

Claim 56: (withdrawn) The method of claim 47, wherein said cancer is drug resistant and hormone dependent or independent breast carcinoma.

Claims 57-58: (canceled)

Claim 59: (withdrawn) A method for treating or preventing drug resistant cancer comprising administering to an animal in need of such treatment an effective amount of a compound of claim 1.

Claim 60: (withdrawn) The method of claim 59, wherein said animal is a mammal.

Claim 61: (withdrawn) The method of claim 59, wherein R_1 and R_2 are hydrogen.

Claims 62-73: (canceled)

Claim 74: (withdrawn) The method of claim 15, wherein said disorder is an autoimmune disease.

Claim 75: (withdrawn) The method of claim 15, wherein said disorder is an infectious viral disease.

Claim 76: (withdrawn) The method of claim 15, wherein said disorder is rheumatoid arthritis.

Claim 77: (withdrawn) The method of claim 15, wherein said disorder is inflammatory bowel disease.

Claim 78: (withdrawn) The method of claim 15, wherein said disorder is a skin disease.

Claim 79: (withdrawn) The method of claim 77, wherein said disorder is psoriasis.